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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,699	03/01/2002	Kou-Joan Cheng	08919-074001	4883
26161	7590	11/15/2005	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			NAFF, DAVID M	
			ART UNIT	PAPER NUMBER
			1651	
DATE MAILED: 11/15/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/087,699

Applicant(s)

CHENG ET AL.

Examiner

David M. Naff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.  
4a) Of the above claim(s) 11-26 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-10 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

A response of 8/25/05 presented arguments and did not amend the claims.

Claims in the application are 1-26.

5        Claims 11-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/15/04.

Claims examined on the merits are 1-10.

10        The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 102***

Claims 1, 3-6 and 8-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Chen et al (AQ on PTO-1449).

15        The claims are drawn to a composition containing a thermolabile protein, which can be an enzyme, admixed with a liquor waste, which can be a sorghum liquor waste. The enzyme can be phytase as disclosed in the specification.

20        Chen et al discloses improving the thermostability of phytase by mixing the phytase with sorghum waste liquor.

The mixing of phytase with sorghum waste liquor as disclosed by Chen et al results in a composition that is the same as presently claimed.

***Response to Arguments***

Applicants urge that Chen et al is not a reference since Chen et al was published less than one year before the filing date of the present application, and that Tang's inventive contribution to the subject matter claimed was directed to a dry form of the composition. However, Chen et al disclose in Figures 1 and 2 mixing a phytase solution with dry sorghum liquor wastes (SLW) in a ratio of 1:10 v/w. Such a mixture will be considered dry in comparison with the phytase solution since the mixture will contain 90% or greater solids content and not be a liquid. The dry SLW has a drying effect since it absorbs moisture with mixed with the phytase solution and results in a composition having a lower percentage moisture than the phytase solution alone. Furthermore, in Figure 2, dry soluble starch is also mixed with the phytase solution to produce a mixture having a ratio of phytase solution:starch:SLW of 1:1:10 (v/w/w). This mixture will contain over 90% solids and will be also be solid instead of a liquid. Furthermore, for the assertion of Tang not being an inventor of some of the inventive subject matter described in the present specification, applicants should present a declaration signed by all inventors describing Tang's inventive contribution and the portion of the invention described in the specification that Tang is not an inventor, and limit the claims to only to the subject matter that Cheng, Huang and Chen are co-inventors. It is noted that the present application contains "Huang" as an inventor whereas the Chen et al reference contains "Hunag" as an author. Is "Hunag" a misspelling?

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If Chen et al is removed as a reference for subject matter invented only by Cheng, Huang and Chen, Chen et al will still be a reference against subject matter that Tang has an inventive contribution.

***Claim Rejections - 35 USC § 103***

5        Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al in view of Cory (4,077,842).

Claims 2 and 7 additionally require the composition to be dried.

Cory discloses producing a dried stabilized enzyme composition. For example, see claims 14 and 15.

10        It would have been obvious to dry the mixture of phytase and sorghum waste liquor disclosed by Chen et al to make the mixture more storage stable and reduce volume for transportation as suggested by Cory drying a stabilized enzyme composition.

***Response to Arguments***

15        Applicants assert that Cory is directed to drying a glucose isomerase concentrate and is silent as to any liquor waste being present. However, the glucose isomerase of Cory is a thermolabile protein, and it would have been expected the mixture of Chen et al can be dried from knowing that a glucose isomerase concentrate can be  
20        dried as disclosed by Cory. The presence of dry SLW with the phytase of Chen et al would have been expected to facilitate drying since it absorbs moisture and reduces the amount of water that needs to be removed. Furthermore, Chen et al disclose that the mixture of SLW and phytase provides phytase having improved thermostability, and being

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thermostable would have led one to believe that the mixture is particularly suitable for drying.

**Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the  
5 extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after  
10 the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX  
15 MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Naff whose telephone number is 571-272-0920. The examiner can normally be reached on Monday-Friday 9:30-6:00.

20 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David M. Naff  
Primary Examiner  
Art Unit 1651

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DMN  
11/10/05